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SEX STATUS IN TEACHER GROUPS*

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ABSTRACT

In twenty groups of secondary teaching majors discussing a school-related problem, male subjects dominated the decision-making process, initiating more verbal acts, exerting more influence, and displaying an interaction style different from that of the females. It is concluded that mixed-sex teacher groups are likely to develop status orderings based on sex rather than on actual competence at the task. In order to create more equal participation, it is suggested that groups be cooperative rather than competitive, that they contain an equal number of women and men, and that intervention by administrators be used to elevate the status of women teachers.

SEX STATUS IN TEACHER GROUPS

Women in the field of education are frequently required to participate in mixed-sex decision-making groups, such as teaching teams or committees, but observers of professional women's behavior, and professional women themselves, describe women's participation in such groups as less than optimal. Women professionals report that sex status intrudes into the vocational setting, creating problems in cross-sex communication which interfere with job performance (Bernard, 1968; Epstein, 1970; Rossi, 1970; Simon, et al., 1967). Because women and men high school teachers frequently work together on faculty committees and teaching teams, the research presented here was designed to examine the possibility that sex status affects the decision-making process in teacher groups.

RELATED RESEARCH

The evidence from previous research indicates that men and women do behave differently in mixed discussion groups. The following three generalizations may be drawn from these studies:

1. Men are more active than women. That is, the average man contributes more verbal acts than the average woman. This was seen to be true of adults in jury deliberations (Strodtbeck and Mann, 1956); of married couples discussing "revealed differences" in judgment or opinion (Kenkel, 1956; March, 1953; Strodtbeck, 1951); and even of second and fifth grade children in a classroom situation (Zander and Van Egmond, 1958).
2. Men are more influential than women. In other words, a woman is more likely to yield to a man's opinion than vice versa. This phenomenon has been observed in juries (Strodtbeck, et al., 1957); in husband-wife decision making (Kenkel, 1957); in groups of college students (Tuddenham, et al., 1958; Whittaker, 1965); and among elementary school children (Zander and Van Egmond, 1958).
3. Men and women differ in interaction style. It has been said that men tend to assume the role of task specialist while women assume the role of social-emotional specialist (Heiss, 1963; Kenkel, 1957; Strodtbeck and Mann, 1956). Men spend a larger percentage of their total interaction making suggestions and giving orientation and opinions to the group. Women, on the other hand, devote a larger share of their total acts to agreeing with or praising others.

Unfortunately, none of these studies involved a situation which closely resembled that of teachers discussing a school-related problem. For this reason, the investigator felt it necessary to examine how well the generalizations held up in an observational setting which more closely approximated the work setting of secondary school teaching.

THEORETICAL BACKGROUND: SEX AS STATUS

Culturally patterned sex roles are typically identified as the cause of the observed differences described above. As working women have indicated, however, the expectations concerning sex-appropriate behavior are not always consistent. For example, in a recent survey, respondents of both sexes stereotyped women as "talkative" and "quiet" (Rosenkrantz, et al., 1968). The Theory of Status Characteristics and Expectation States (Berger, et al., 1966) may provide an alternative way of conceptualizing interaction in mixed groups. This theory proposes that, under specified conditions, persons placed together to work inter-dependently at a task will seeks ways of predicting which persons will be the most competent at the task. When there is no immediately obvious basis for determining relative competence, such as known skill, and the actors possess differing values of a diffuse status characteristic, a general expectation state associated with the status characteristic will come into play. An expectation for greater competence on the part of those high on the characteristic will diffuse to the immediate situation, causing all participants, both those high and those low on the status characteristic, to assume greater competence on the part of the "highs." As a result, it is predicted that the "highs" will take the lead in task resolution, doing more talking and exerting more influence than the "lows."

Both conceptualizations are consistent with the results of past research and it will not be possible in this study to resolve whether one approach provides a more accurate explanation than the other. Why, then, is it useful to describe male-female interaction as a matter of status as opposed to sex role? One reason is that the words used in the two conceptualizations direct attention to different interpretations of the behavior described. Speaking of sex roles tends to emphasize the complementary aspects of sex role specialization. The fact is stressed that men and women tend to play different, but equally necessary, roles. The fact that they also differ in power and influence is acknowledged, but not highlighted. Status Characteristic Theory, on the other hand, places the emphasis squarely on the power and prestige ordering which arises in line with the status dimension. Attention is directed to the dysfunctions of status-ordered behavior when it becomes apparent that low status persons make fewer contributions to a group and the suggestions they do make are less likely to be accepted. In addition, this theory spells out the process through which a status ordering arises and thereby provides guidance to the experimenter who would intervene to alter the effects of a status characteristic.

Theoretically, sex fits the formal definition of a diffuse status characteristic (D) as stated by Berger, et al. (1966:33).

1. There are two or more states of D which are differentially evaluated. Kohlberg (1966:105) reviews the literature on early gender stereotypes and concludes that "by age five-six, children award greater power, strength, and competence (and consequently more status) to the male." Numerous studies have found that both sexes evaluate males more favorably than females (Broverman, et al, 1970; Fernberger, 1948; Kitay,

1940; MacBrayer, 1958; McKee and Sheriffs, 1957; Rosenkrantz, et al., 1968; Sherriffs and Jarrett, 1953; and Smith, 1939).

2. To each state of D there corresponds a distinct set of specifically associated, evaluated states of characteristics. Given trait or adjective check lists, subjects will identify a great many characteristics as being either masculine or feminine and will do so with a high degree of agreement. Subjects will also evaluate these traits as more or less favorable, generally assigning a higher value to stereotypically masculine characteristics (McKee and Sherriffs, 1956; Rosenkrantz, et al., 1968).

3. To each state of D there corresponds a distinct general expectation state having the same evaluation as the state D. The existence of a general expectation state is evidenced by the global comparisons which people are willing to make of men and women. In two studies, over 90 percent of male respondents and over 80 percent of female respondents said they considered men superior to women "overall" (Fernberger, 1958; McKee and Sherriffs, 1957). A majority of each sex also endorses the statement that men possess higher general intelligence than women (Fernberger, 1948; Sherriffs and Jarrett, 1953).

Although mixed teacher groups would seem to fall within the conditions described by the theory, it is possible that common professional training and experience may supress the effect of sex status. Seashore (1968) found that the effect of a differentiating status characteristic was inhibited when subjects were told that a fellow participant differed from themselves on one status dimension but was equal to them on two others. If high school teachers tend to think of themselves primarily as professionals having similar training and organizational rank, their status as males or females would not be relevant and sex would not act as a diffuse status characteristic in teacher work groups.

HYPOTHESES

This study tests three hypotheses concerning men and women teachers interacting over a professional problem. The first two could have been derived from either Status Characteristic Theory or the empirical generalizations described above.

Hypothesis 1: The men will initiate more verbal acts than the women.

Hypothesis 2: Men will hold the position of most influential group member more often than will women.

Status Chracteristic Theory does not include differential predictions regarding interaction style. The third hypothesis was based on sex differences in types of initiation observed in previous research and was adapted to fit the scoring categories of the present study.

Hypothesis 3: Men will initiate a larger proportion of their acts in the "performance output" category, while women will initiate a larger proportion of their acts in the "positive reactions" category.

PROCEDURE

Overview

Twenty four-person groups, each composed of two male and two female secondary teaching majors, were given a school-related problem to discuss and a 25-minute time limit for arriving at consensus on a solution. There were no appointed or elected leaders for the discussions. The interaction was recorded on videotape and scored by two sets of observers. One set coded task-related interaction; the other coded specific types of social-emotional behavior. Data were also obtained from post-discussion questionnaires completed by the subjects and from the observers' evaluations of the discussions.

The Task

The task was a case study concerning a dropout recently returned to school and applying for a part-time job at the school. Subjects were told they were to act as the committee administering the work-study program and that they were entirely responsible for deciding what to do with the boy's application. If they agreed to give him the job, they were to outline a set of recommendations to be used by the teacher supervising the student. In giving instructions to the groups, the investigator emphasized that the members of each group were matched on training and experience so that they would have the same ability to contribute to the task discussion.

Selection of Subjects

A screening questionnaire was used in recruiting subjects from education classes at two state colleges. The members of each group were matched on age level and the number of education courses completed. To minimize the possibility that subjects had already evaluated each other, groups were constructed in such a way that all members of a given group had been recruited from different classes. Because race has been shown to act as a diffuse status characteristic (Cohen, 1972), persons of visible minority status were not included in the subject pool.

Observation of Task-Related Acts

Two observers, one male and one female, coded all verbal statements, except jokes, into the following categories which were derived from Status Characteristic Theory and the work of Bales (1955).

1. Performance outputs were task-related statements, such as suggestions or opinions.
2. Action opportunities were questions or statements seeking the input of others.
3. Positive reactions were agreements or praise.
4. Negative reactions were disagreements and criticisms.

Since the subjects were highly task-oriented and seldom joked, this system can be considered virtually exhaustive of all verbal acts. An act was defined as a continuous speech addressed to an individual or the group as a whole. A speech was considered continuous, regardless of pauses, as long as (1) it was not interrupted by another person, (2) it remained in one category of type of act, and (3) it remained addressed to the same person. In addition to the type of act classifications, the observers noted the number of the person making the remark (the initiator) and that of the person to whom it was addressed (the recipient). Data from this scoring system were used to text hypotheses 1 and 3.

Observation of Social-Emotional Acts

Two other observers, again one female and one male, coded verbal and nonverbal acts into five categories of social-emotional behavior: (1) joking; (2) laughing; (3) signs of tension--for example, giggling, stammering, and twisting one's hair; (4) successful interruptions, and (5) unsuccessful interruption attempts. Data from this scoring procedure were used to evaluate the reactions of others to women who were active or influential in their groups.

Inter-Observer Reliability

Inter-observer reliability checks were made on the basis of independent scorings of the same groups by two observers. Comparisons were made between the observers' totals in the following categories:

1. Initiation--the total number of acts initiated by each group member;
2. Reception--the total number of acts received by each group member and by the group as a whole;
3. Type-Act--the total number of acts classified within each type of act category.

A chi-square test of significance was employed to determine whether the disagreement in the observers' totals could reasonably be attributed to chance. A probability of .80 or above that disagreement between observers was due to chance was designated as the minimum acceptable level of reliability. Randomly selected checks were made over the course of the scoring period by assigning the same group to both observers approximately 30 percent of the time. In all but one instance, inter-observer reliability surpassed the criterion level.

The Influence Measure

The two indicators used to measure influence were:
(1) being the initiator of the most winning suggestions of the group that is, being the first person to propose most of the ideas included in the final decision; and
(2) being the primary advocate of the most winning suggestions, i.e., speaking in support of the ideas included in the decision more often than any other member.

Scoring involved working backward from the stated final decision of a group. The tapes were carefully reviewed in order to record the

initiator of each winning suggestion and the number of times each member spoke in favor of the idea.

RESULTS

Initiation

The behavior of any individual in a small group is closely related to the actions and responses of the other group members; it is therefore most meaningful to use the group as the unit of analysis whenever possible. A simple way to examine the relationship between status ordering and sex is to rank each of the participants in a group on the basis of the total number of task acts initiated and then look at the probability of a man or woman holding a particular rank. Table 1 shows the number of times a rank order position on task initiation was held by men and women.

Table 1 about here

These data indicate that the greatest differences between men and women appear in the higher ranks. Women are much less likely to hold the first rank but are more likely to hold the second rank; they are only slightly more likely than men to hold ranks three and four.

Another way to compare initiation rates is to rank the individuals of the same sex in a group by activity level. The man with the higher initiation rate of the two males is labeled "Man I;" the other man is called "Man II." Similarly, of the two women in a group, the one initiating more acts is called "Woman I," and the other is called "Woman II." A sign test can be performed by counting the number of times Man I initiated more acts than the corresponding Woman I and the number of times Man II out-talked Woman II. This analysis is presented in Table 2, and the results are supportive of Hypothesis 1.

Table 2 about here

Overall, men initiated an average of 56 percent of all the task acts, while women contributed 44 percent of the total task-related activity.

Influence

In 15 of the 20 groups the same individuals both initiated most of the winning suggestions and served as the primary supporter of most winning ideas, making the most influential person an obvious choice. When the initiator was not also the prime supporter (4 groups), the prime supporter was defined as the most influential. In one group, the behaviors considered in the influence measure were performed virtually equally by two persons, making it impossible to designate anyone as most influential. Of the 19 persons identified as the most influential member of their group, only 4 were women. [χ^2 (1) = 3.37, $p < .10$.] Men dominated both parts of the influence measure, contributing 64 percent of the winning suggestions and acting as the primary supporters of 73 percent of the ideas included in final decisions.

Type of Act Initiation

In order to compare initiation rates of men and women by type of act category, the percentage of each person's total task initiation falling into each of the four categories was computed. These individual percentages were then averaged for all men and for all women (Table 3).

Table 3 about here

On the average, a man's interaction profile contains about 11 percent more performance outputs than a woman's profile. This difference is nearly balanced by the positive reactions category in which the female contains about 10 percent more contributions than the male profile. Using the Mann-Whitney test, sex comparisons on both types of initiation are statistically significant. Men are more likely than women to use performance outputs ($p < .005$); women are more likely than men to give positive evaluations ($p < .05$).

DISCUSSION

The results of this study indicate that women involved in decision making concerning a professional task display the passive behavior patterns observed previously in mixed task groups. Since there is no reason to believe that the sexes differed in competence, we may infer that the women did not contribute to the full extent of their ability. But the question must remain unanswered as to whether this restriction of activity resulted from perceived lack of competence, as proposed by Status Characteristic Theory, or whether it represents compliance with a sex role norm. Post hoc analyses were carried out to see whether women in teacher groups who violate sex role norms by assuming leadership positions are likely to face negative reactions from other group members.

There were seven women who were either the most active or the most influential member of their group, including two who led their groups in both respects. Data from the post-discussion questionnaire and from the social-emotional observations scheme were examined to see if they encounted negative responses. Apparently, they did not. Each subject ranked all members of his group on guidance, quality of ideas, leadership, influence, tact, cordiality, and likeability. When the ratings received by the seven women were compared to those received by similarly active or influential men, there were few differences. If anything, the women received slightly better ratings, especially on cordiality. The observers agreed, rating groups with assertive women as slightly more cordial than other groups. These women were no more likely than men to be interrupted, and their groups did not display high rates of tension or joking.

The interaction profiles of assertive men and women provide evidence that the women's behavior may actually have been more pleasant than that of the men. A number of the men had exceptionally "masculine" interaction styles. They devoted unusually large proportions of their acts to performance outputs and spent little time reacting to the ideas

of others. By contrast, the women displayed an intensely "feminine" style, giving many positive reactions to others. Is it possible that women achieve leadership through "sex-appropriate" behaviors?

That question cannot be answered here, but there is evidence that women do suffer loss of influence if they are unpleasantly assertive. Wahrman and Pugh (1974) describe an experiment involving groups composed of three male college students and a male or female confederate who violated group procedural rules, interrupted others, criticized their ideas, and suggested that his or her own ideas be followed. Such nonconformity by a man led to increased influence and increased desirability as a co-worker, but for a woman it led to decreased influence and desirability. From an analysis of "liking" scores, the authors conclude that men discount the value of cordiality when selecting a male coworker, but they demand cordiality of a female co-worker.

Similar results are reported by Wolman and Frank (1973) who observed six self-analytic groups over a period of several months. Three groups were composed of graduate students in business administration; three involved first-year psychiatric residents. Each contained four or five men and a single woman. The men in these groups appeared threatened by a woman's assertive behavior and did not allow the woman to participate actively or compete for status within the group. The authors conclude that a woman in this situation would be well advised to restrict all behavior and remain inconspicuous.

Is it likely that women who assert themselves in teacher groups will face the sort of resistence reported by Wolman and Frank? Perhaps not. The teaching situation differs in two potentially important ways. First, since teaching is a less sex-typed profession than business or psychiatry, the woman teacher is less likely to find herself the lone woman in an otherwise all-male group. Even when she does, her presence is less likely to be viewed as violating an all-male group norm. Second, although the psychiatry and business groups were not meant to be competitive in nature, they did involve students in a formal training experience who were in a position to be observed and evaluated by powerful others (their professors and supervising doctors). Since most teacher groups are teaching teams or committees which are seldom observed by a supervisor, less cause might exist for competitiveness or one-upsmanship.

The results of the experiment with prospective teachers indicate, however, that maintaining an equal sex balance and removing causes for competitiveness will not insure women's full participation in decision making. If sex is viewed as a diffuse status characteristic, then attempts to change racial status orderings in small groups can suggest additional strategies for modifying male dominance in teacher groups.

Lohman (1970) used a role modeling technique to train black youths in behaviors known to contribute to influence in a particular decision making game. When these subjects then played the game in groups of two whites and two blakcs, they were as active and influential as the whites. Blacks not given the training were significantly less active and influential than whites. Cohen and Roper (1972) report, however, that treatments affecting only those low on a status characteristic are unlikely

to produce an effect which will transfer to other task encounters because one instance of successful performance may not alter a general expectation that persons low on a status characteristic are less competent. These researchers arranged for black youths to demonstrate high ability on two different tasks in the presence of white youths and had an adult endorse the ability of the blacks. After this treatment, which was designed to affect the expectations of both races, blacks and whites interacted as status equals on a third task.

These results suggest that providing women teachers with training in specific group skills may improve their participation in a limited number of highly similar situations. To increase the effectiveness of women in a wider range of settings, one might try enlisting the cooperation of a principal or department head to create opportunities for women to demonstrate their competence before male colleagues and to provide public recognition of the women's performance.

TABLE 1

Relationship of Rank Order on Task Initiation
To Sex of Participant in Twenty Groups*

Rank	Number of Groups Where S with this Rank is Male	Number of Groups Where S with this Rank is Female
High Rank	16	4
Second Rank	7	13
Third Rank	9	11
Low Rank	8	12

*$\chi^2(3) = 10.00$ $p < .02$.

TABLE 2

Statistical Comparisons of Total Task Initiation Rate
By Sex and Activity Category Using the Sign Test

Comparison	Level of Significant Differences (Two-Tailed)
Man I Woman I (16 pairs vs. 4 pairs)	$p < .02$
Man II Woman II (12 pairs vs. 8 pairs)	not significant
All Pairs Combined (28 pairs vs. 12 pairs)	$p < .02$

TABLE 3

Average Percentage of Acts in Four Type-act Categories:
By Sex of S

Sex	Performance Outputs	Action Opportunities	Positive Reactions	Negative Reactions	Totals
Men	71.76	7.70	17.91	2.64	100.01
Women	60.57	9.24	27.57	2.63	100.01

References

Bales, Robert F.

1950 Interaction Process Analysis. Cambridge, Mass.: Addison-Wesley.

Berger, J., B.P. Cohen, and M. Zelditch.

1966 "Status characteristics and expectation states." Pp. 29-46 in J. Berger, M. Zelditch, and B. Anderson (eds.) Sociological Theories in Progress: Volume One. New York: Houghton Mifflin Co.

Bernard, Jesse.

1967 "The second sex and cichlid effect." Association of Women Deans and Counselors Journal 31 (Fall): 8-17.

Broverman, I.K., et al.

1970 "Sex role stereotypes and clinical judgments of mental health." Journal of Counsulting and Clinical Psychology 34 (February): 1-7.

Cohen, Elizabeth G.

1972 "Interracial interaction disability." Human Relations 25 (February): 9-24.

Cohen, Elizabeth G. and Susan S. Roper.

1972 "Modification of interracial interaction disability: an application of status characteristic theory." American Sociological Review 37 (December): 643-657.

Epstein, Cynthia F.

1970 "Encountering the male establishment: sex-status limits on women's careers in the profession." American Journal of Sociology 75 (May): 965-982.

Fernberger, Samuel W.

1948 "Persistence of stereotypes concerning sex differences." Journal of Abnormal and Social Psychology 43 (January): 97-101.

Heiss, Jerold.

1962 "Degree of intimacy and male-female interaction." Sociometry 25 (June): 197-208.

Kenkel, W.F.

1957 "Influence differentiation in family decision making." Sociology and Social Research 42 (September): 18-25.

Kitay, P.M.

1940 "A comparison of the sexes in their attitudes and beliefs about women: a study of prestige groups." Sociometry 3: 399-407.

Kohlberg, Lawrence

1966 "A cognitive-developmental analysis of children's sex-role concepts and attitudes." Pp. 82-173 in Eleanor E. Maccoby (ed.) The Development of Sex Differences. Stanford, California: Stanford University Press.

Lohman, Mark

1970 "Changing a racial status ordering by means of role modeling." Technical Report No. 3 Stanford, California: The Center for Research and Development in Teaching, Stanford University.

MacBrayer, Caroline T.

1960 "Differences in perception of the opposite sex by males and females." Journal of Social Psychology 52 (November): 309-314.

March, James G.

1953 "Husband-wife interaction over political issues." Public Opinion Quarterly 17 (Winter): 461-470.

McKee, J.P., and A.C. Sherriffs.

1957 "The differential evaluation of males and females." Journal of Personality 25 (March): 356-371.

Rosenkrantz, P., et al.

1968 "Sex-role stereotypes and self-concepts in college students." Journal of Consulting and Clinical Psychology 32 (June): 287-295.

Rossi, Alice S.

1970 "Job discrimination and what women can do about it." The Atlantic Monthly 225 (March): 99-102.

Seashore, Marjorie.

1968 "The formation of performance expectations for self and others in an incongruent status situation." Unpublished Ph.D. dissertation, Stanford University.

Sherriffs, A.C., and R.F. Jarrett.

1953 "Sex differences in attitudes about sex differences." Journal of Psychology 35 (January): 161-168.

Simon, Rita J., Shirley M. Clark, and Kathleen Galway.

1967 "The woman Ph.D.: a recent profile." Social Problems 15 (Fall): 221-236.

Smith, Stevenson,

1939 "Age and sex differences in children's opinion concerning sex differences." Journal of Genetic Psychology 54 (March): 17-25.

Strodtbeck, F.L.

1951 "Husband-wife interaction over revealed differences." American Sociological Review 16 (August): 468-473.

Strodtbeck, F.L. and R.D. Mann.

1956 "Sex role differentiation in jury deliberations." Sociometry 19 (March): 257-268

Strodtbeck, F.L., R.M. James, and G. Hawkins.

1957 "Social status in jury deliberations." American Sociological Review 22 (December): 713-719.

Tuddenham, R.D., P. MacBride, and V. Zahn.

1958 "The influence of the sex composition of the group upon yielding to a distorted group norm." Journal of Psychology 46 (October): 243-251.

Wahrman, Ralph, and Meredeith D. Pugh

1974 "Sex, nonconformity, and influence." Sociometry 37 (March): 137-148.

Whittaker, James O.

1965 "Sex differences and susceptibility to interpersonal persuasion." Journal of Social Psychology 66 (January): 91-94.

Wolman, Carol, and Hal Frank.

1973 "The solo woman in a professional peer group." Working Paper No. 138. Philadelphia: Department of Management, The Wharton School, University of Pennsylvania.

Zander, A., and E. Van Egmond.

1958 "Relationship of intelligence and social power to the interpersonal behavior of children." Journal of Educational Psychology 49 (October): 257-268.